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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,395	11/21/2001	Atsushi Hayami	0102/0189	1318
21395	7590	05/24/2006	EXAMINER JEANGLAUDE, JEAN BRUNER	
LOUIS WOO LAW OFFICE OF LOUIS WOO 717 NORTH FAYETTE STREET ALEXANDRIA, VA 22314			ART UNIT 2819	PAPER NUMBER

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/989,395

Applicant(s)

HAYAMI, ATSUSHI

Examiner

Jean B. Jeanglaude

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/21/01; 10/1/04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 17 of U.S. Patent Number 6,853,320.

US application (09/989,395)	US Patent Number 6,853,320)
A modulation method comprising the steps	A modulation method comprising the steps

of:	of
generating a 6-bit output code word in response to every 4-bit input code word by referring to a set of encoding tables, wherein the encoding tables contain output code words assigned to input code words, and contain encoding-table designation information accompanying each output code word, wherein the encoding-table designation information designates an encoding table among the encoding tables which is used next to generate an output code word immediately following the output code word accompanied with the encoding-table designation information;	generating a 6-bit output code word in response to every 4-bit input code word by referring to a set of encoding tables, wherein the encoding tables contain output code words assigned to input code words, and contain encoding-table designation information accompanying each output code word, wherein the encoding-table designation information designates an encoding table among the encoding tables which is used next to generate an output code word immediately following the output code word accompanied with the encoding-table designation information;
and sequentially connecting the generated output code words into a sequence of the generated output code words which follows predetermined run length limiting rules (1, k)RLL, where "k" denotes a <b>predetermined natural number between 7 and 12.</b>	sequentially connecting the generated output code words into a sequence which follows run length limiting rules;

	<b>And changing the run length limiting rules between RLL(1, 7) and RLL(1, 8) in response to auxiliary information to superimpose the auxiliary information on the sequence of the generated output code words.</b>
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US Application Number 09/989,395	US Patent Number 6,853,320
A modulation apparatus comprising:	A modulation apparatus comprising:
means for generating a 6-bit output code word in response to every 4-bit input code word by referring to a set of encoding tables, wherein the encoding tables contain output code words assigned to input code words, and contain encoding-table designation information accompanying each output code word, wherein the encoding-table designation information designates an encoding table among the encoding tables which is used next to generate an output code word	means for generating a 6-bit output code word in response to every 4-bit input code word by referring to a set of encoding tables, wherein the encoding tables contain output code words assigned to input code words, and contain encoding-table designation information accompanying each output code word, wherein the encoding-table designation information designates an encoding table among the encoding tables which is used next to generate an output code word

immediately following the output code word accompanied with the encoding-table designation information;	immediately following the output code word accompanied with the encoding-table designation information;
and means for sequentially connecting the generated output code words into a sequence of the generated output code words which follows predetermined run length limiting rules (1, k)RLL, where "k" denotes a predetermined natural number between 7 and 12.	means for sequentially connecting the generated output code words into a sequence which follows run length limiting rules;
	and means for changing the run length limiting rules between RLL(1, 7) and RLL(1, 8) in response to auxiliary information to superimpose the auxiliary information on the sequence of the generated output code words.

Although the conflicting claims are not identical, they are not patentably distinct from each other because "a limitation on a claim can broadly be thought of then as its ability to make a meaningful contribution to the definition of the invention in a claim. In other words, language that is not functionally interrelated with the useful acts, structure, or properties of the claimed invention will not serve as limitation" See *In re Gulack*, 217

Art Unit: 2819

USPQ 401 (CAFC 1983). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use US application disclosure to perform the same function as US Patent No. 6,853,320.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2819

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Jean Bruner Jeanglaude". The signature is written in a cursive, flowing style.

Jean Bruner Jeanglaude  
Primary Examiner  
May 16, 2006